

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

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In re application of: Richard Robert SCHEDIWY Group Art Unit: 2675
10 Serial No.: 09/176,639 Examiner: Srilakshmi K. KUMAR
Filed: October 20, 1998 Confirmation No.: 2112

For: FINGER/STYLUS TOUCH PAD

15 Customer No.: 69819
Attorney Docket No.: 028.1108

20 **APPEAL BRIEF PURSUANT TO 37 C.F.R. § 41.37**

 This is an Appeal Brief under 37 C.F.R. § 41.37 appealing the rejections set forth
in the Non-Final Office Action dated January 22, 2010. Each of the topics required by 37
C.F.R. § 41.37 is presented in this Brief and is labeled appropriately.

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I. REAL PARTY IN INTEREST

Synaptics, Inc. (“Synaptics”) is the real party in interest of the present application. An assignment of all rights in the present application to Synaptics was executed by the inventors and recorded by the U.S. Patent and Trademark Office at **Reel 010447, Frame**

5 **0711.**

II. RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences related to the present application of which Appellant is aware.

III. STATUS OF CLAIMS

Claims 24 and 52-96 are pending in this application and are involved in this appeal, with Claims 24, 52, 63, 68 and 88 being the independent claims. Claims 1-23 and 25-51 have been cancelled.

IV. STATUS OF AMENDMENTS

All amendments have been entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The embodiment encompassed by independent claim 24 relates to a touch pad system (see FIG. 6). The touch pad system includes a sensor layer, an insulative layer
5 disposed over the sensor layer, and a touch layer disposed over the insulative layer (see FIG. 6, page 9, lines 1-4). The touch layer has a conductivity selected to create an image of a conductive object that is larger than an area of contact of said conductive object (see FIG. 6, page 9, lines 5-16 and page 10, lines 3-6) The sensor layer capacitively detects the image of said conductive object when said conductive object is placed proximate to
10 said touch layer (see page 6, line 1, to page 7, line 12), and the conductivity of the touch layer is configured to limit the size of said image to approximately four times the area of contact of said conductive object (see page 12, lines 4-16).

The embodiment encompassed by independent claim 52 relates to a touch pad
15 system (see FIG. 6). The touch pad system includes a sensor layer, an insulative layer disposed over the sensor layer, and a conductive touch layer disposed over the insulative layer (see FIG. 6, page 9, lines 1-4). The sensor layer, the insulative layer and the conductive touch layer are configured to form a capacitor with a conductive object when said conductive object contacts said conductive touch layer, said formed capacitor having
20 a capacitance determined in part by the conductive touch layer and the conductive object (see page 6, line 1, to page 7, line 12). The conductive touch layer has a conductivity configured to create an image of said conductive object that is larger than an area of contact of said conductive object to thereby increase the capacitance of the formed capacitor when contacting the conductive touch layer and facilitate sensing of the
25 capacitance to determine a position of the conductive object (see FIG. 6, page 9, lines 5-16 and page 10, lines 3-14, page 12, lines 4-16).

The embodiment encompassed by independent claim 63 relates to a touch pad system (see FIG. 6). The touch pad system includes a sensor layer, an insulative layer

disposed over the sensor layer, and a conductive touch layer disposed over the insulative layer (see FIG. 6, page 9, lines 1-4). The sensor layer, the insulative layer and the conductive touch layer are configured to form a capacitor with a conductive object when said conductive object contacts said conductive touch layer, said formed capacitor having
5 a capacitance determined in part by the conductive touch layer and the conductive object (see page 6, line 1, to page 7, line 12). The conductive touch layer comprises conductive carbon disposed in epoxy (see page 9, lines 1-6) and has a conductivity selected to create an image of a conductive object that is at least four times larger than an area of contact (see page 12, lines 4-16). The conductive touch layer thereby increases the capacitance
10 of the formed capacitor when contacting the conductive touch layer and facilitate sensing of the capacitance to determine a position of the conductive object (see FIG. 6, page 9, lines 5-16 and page 10, lines 3-14).

The embodiment encompassed by independent claim 68 relates to a touch pad
15 system (see FIG. 6). The touch pad system includes a sensor layer, an insulative layer disposed over the sensor layer, and a conductive touch layer disposed over the insulative layer (see FIG. 6, page 9, lines 1-4). The sensor layer, the insulative layer and the conductive touch layer are configured to form a capacitor with a conductive object when said conductive object contacts said conductive touch layer, said formed capacitor having
20 a capacitance determined in part by the conductive touch layer and the conductive object (see page 6, line 1, to page 7, line 12). The conductive touch layer has a conductivity selected to create an image of a conductive object that is times larger than an area of contact (see page 12, lines 4-16). The conductive touch layer thereby increases the capacitance of the formed capacitor when contacting the conductive touch layer and
25 facilitate sensing of the capacitance to determine a position of the conductive object (see FIG. 6, page 9, lines 5-16 and page 10, lines 3-14).

The embodiment encompassed by independent claim 88 relates to a touch pad system (see FIG. 6). The touch pad system includes a sensor layer, an insulative layer

disposed over the sensor layer, and a conductive touch layer disposed over the insulative layer (see FIG. 6, page 9, lines 1-4). The sensor layer, the insulative layer and the conductive touch layer are configured to form a capacitor with a conductive object when said conductive object contacts said conductive touch layer, said formed capacitor having
5 a capacitance determined in part by the conductive touch layer and the conductive object (see page 6, line 1, to page 7, line 12). The conductive touch layer has a conductivity selected to create an image of a conductive object that is times larger than an area of contact (see page 12, lines 4-16). The conductive touch layer thereby increases the capacitance of the formed capacitor when contacting the conductive touch layer and
10 facilitate sensing of the capacitance to determine a position of the conductive object (see FIG. 6, page 9, lines 5-16 and page 10, lines 3-14). The conductive touch is also configured to produce a visual mark representative of said area of contact for providing visual feedback to the user (see page 11, lines 11-27).

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VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed in this appeal are as follows:

1. Claims 24, 52-96 were rejected under 35 U.S.C. § 112, first paragraph, as
5 allegedly failing to comply with the written description requirement.

2. Claims 24, 52-96 were rejected under 35 U.S.C. § 112, first paragraph, as
allegedly failing to comply with the enablement requirement.

10

VII. ARGUMENT

1. Claims 24, 52-96 meet the written description requirement under 35 U.S.C. § 112, first paragraph.

5

A. Rejections under 35 USC §11, first paragraph, as failing to comply with the written description requirement

In the office action, claims 24, 52-96 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. In particular,
10 the Examiner cited to the phrase “wherein the conductive touch layer has a conductivity configured to create an image of said conductive object that is larger than an area of contact of said conductive object” in independent claim 52, and similar language in independent claims 24, 63, 68 and 88.

In making this rejection the Examiner alleged that the specification does not
15 adequately disclose how the “conductivity is configured to create an image of said conductive object that is larger than an area of contact of said conductive object”. The Examiner notes that the specification teaches “For best operation, the conductivity of the surface layer should be chosen such that the image of the stylus is about the same size as the image generated by a finger on a normal capacitive sensor.” However, the Examiner
20 then alleges that the specification does not teach how the conductivity is chosen or selected as claimed in the independent claims. The Examiner supports this by stating that the specification at page 9, line 14 to page 10, line 7 simply states that a conductivity that is too large or too small is flawed, and that a moderate conductivity is appropriate. The Examiner then concludes by stating that “The specification fails to accurately describe or
25 define how a moderate conductivity is determined.”

B. Analysis

Appellants submit that the claims meet the written description requirements of 35 U.S.C. 112, first paragraph.

First, appellants note that in making this rejection for lack of an appropriate written description, the Examiner appears to instead rely upon an analysis that is more appropriate for an examination of enablement under 35 U.S.C. 112. Specifically, in stating that the specification “does not teach how the conductivity is chosen or selected as claimed” the Examiner seems to be addressing the standard for enablement under 35 U.S.C. 112, and not the standard for evaluating the specification under the written description requirement. Appellants also note that the Examiner also made such a rejection for lack of enablement explicit in the next section of the office action, and that this explicit rejection for lack of enablement is discussed in detail in Section 2 below.

Applicants further note that the written description requirement is a separate requirement from enablement. *Ariad Pharmaceuticals, Inc. v. Eli Lilly and Co.* (Fed. Cir. 2010) (en banc). Appellants next note that the written description requirement is intended to ensure that the inventors “disclose the technologic knowledge upon which the patent is based [and] demonstrate that the patentee was in possession of the invention that is claimed.” *Capon v. Eshhar*, 418 F.3d 1349, 1357, 76 USPQ2d 1078, 1084 (Fed. Cir. 2005). To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. See, e.g., *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319, 66 USPQ2d 1429, 1438 (Fed. Cir. 2003); *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d at 1563, 19 USPQ2d at 1116. An applicant shows possession of the claimed invention by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). Finally, an adequate written description of the invention may be shown by any description of sufficient, relevant, identifying characteristics so long as a person skilled in the art would recognize that the inventor had possession of the claimed invention. See, e.g., *Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1323, 56 USPQ2d 1481, 1483 (Fed. Cir. 2000).

Next, appellants note that while a question as to whether a specification provides an adequate written description may arise in the context of an original claim which is not described sufficiently (see, e.g., *Regents of the University of California v. Eli Lilly*, 119 F.3d 1559, 43 USPQ2d 1398 (Fed. Cir. 1997)), there is a strong presumption that an
5 adequate written description of the claimed invention is present in the specification as filed. *In re Wertheim*, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976).

In the instant case, the limitation of a conductivity “configured to create an image of said conductive object that is larger than an area of contact of said conductive object” closely follows the language of original claim 9, which recited “wherein said conductive
10 layer is of a resistance as to expand a small contact area of a tip of a conductive stylus into an image of suitable size for position measurement.” As such, there is a strong presumption of an adequate written description for the limitations at issues.

Furthermore, appellants submit that regardless of such a presumption, the specification clearly shows possession of the claimed invention by describing the claimed
15 invention with all of its limitations such that a person skilled in the art would recognize that the inventor had possession of the claimed invention.

Specifically, appellants note that the specification teaches:

- A conductive touch layer that has a moderate conductivity that spreads out the ground image of the tip of the stylus (see appellant’s specification at page 8, lines
20 25-31).
- A suitable material for this purpose is a conductive carbon powder in a plastic carrier material such as epoxy (page 9, lines 1-13).
- By controlling the conductivity of layer 501, the image of the stylus tip can be adjusted to provide a sufficient signal on an appropriate number of electrodes
25 (page 9, lines 14-17). This effect is also illustrated in FIG. 6.

- If the conductivity is too large, the image will be very large, possibly even covering the entire surface of the pad (page 9, lines 19-23). This effect is also illustrated in FIG. 7.
- If the conductivity is too small, the image will not be much larger than the tip of the stylus (page 9, lines 30-33). This effect is also illustrated in FIG. 8.
- The specification teaches that for one embodiment, the conductivity of the surface can be chosen for best operation such that the image of the stylus is about the same size as a finger would be on a normal capacitive sensor (see page 10, lines 3-6, and the similarity between graph 205 of FIG. 2 and graph 506 of FIG. 6). The specification also gives as an example the increasing of area by a factor of four (see page 12, lines 4-12).

Appellants also note that someone with ordinary skill in capacitive sensor design would have a professional level of training in electrical engineering and physics, and would thus have a strong understanding of underlying material properties, including the conductivity of materials such as carbon impregnated epoxy.

Taken together, the specification thus clearly describes a conductive touch layer that creates an image of a conductive object that is larger than an area of contact. The specification teaches suitable material for use in such a conductive touch layer (*i.e.*, carbon powder in epoxy), describes a suitable conductivity of the conductive touch layer (*i.e.*, moderate conductivity), and gives detailed guidance in determining what the effect of a suitable conductivity for a particular application would be (*i.e.*, selected to increase an image of a stylus by a factor of 4). As such, the patent specification clearly describes the recited conductive touch layer in sufficient detail that one skilled in the art would reasonably conclude that the inventor had possession of the claimed limitation

Stated another way, the specification clearly provides a description of a “conductive touch layer” with a “conductivity configured to create an image of said conductive object that is larger than an area of contact of said conductive object” such

that a person skilled in the art would recognize that the inventor had possession of the claimed invention. As such, the specification clearly discloses the “technologic knowledge upon which the patent is based [and] demonstrate that the patentee was in possession of the invention that is claimed.” *Capon v. Eshhar*, 418 F.3d 1349, 1357, 76 USPQ2d 1078, 1084 (Fed. Cir. 2005).

Thus, appellants submit that the specification satisfies the written description requirements of 35 U.S.C. 112, first paragraph.

2. Claims 24, 52-96 meet the enablement requirement under 35 U.S.C. § 112, first paragraph

A. Rejections under 35 USC §11, first paragraph, as failing to comply with the enablement requirement

Claims 24, 52-96 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. In making this rejection the Examiner alleged that the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, the Examiner alleged that the various limitations of the touch layer “having a conductivity selected to create an image of a conductive object that is larger than an area of contact of said conductive object” were not adequately supported in the specification. Specifically, the Examiner concluded that the specification does not enable a person of ordinary skill in the art to make and use the claimed invention without resorting to “undue experimentation”.

B. Analysis

Appellants submit that the claims meet the enablement requirements of 35 U.S.C. 112, first paragraph. First, appellants note that the test of enablement is not whether any experimentation is necessary, but whether, if experimentation is necessary, it is “undue”. See *In re Angstadt*, 537 F.2d 498, 504, 190 USPQ 214, 219 (CCPA 1976), and MPEP 2164.01. Furthermore, the quantity of experimentation needed is only one factor

involved in determining whether “undue experimentation” is required to make and use the invention. Thus, an extended period of experimentation may not be undue if the skilled artisan is given sufficient direction or guidance. See *In re Colianni*, 561 F.2d 220, 224, 195 USPQ 150, 153 (CCPA 1977). Stated another way, a considerable amount of experimentation is permissible, if it is merely routine, or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed. See *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988), and MPEP 2164.06.

In the current case, appellants submit that the specification provides sufficient guidance to make and use the invention, such that “undue experimentation” would not be required by one of ordinary skill in art to make and use the invention. Again, regarding the conductivity of the top layer the specification teaches that:

- The conductive touch layer has a moderate conductivity that spreads out the ground image of the tip of the stylus (page 8, lines 25-31).
- A suitable material for this purpose is a conductive carbon powder in a plastic carrier material such as epoxy (page 9, lines 1-13).
- The moderate conductivity of the material causes the effect to dissipate with distance from the point of contact with the stylus (page 9, lines 8-13).
- By controlling the conductivity of layer 501, the image of the stylus tip can be adjusted to provide a sufficient signal on an appropriate number of electrodes (page 9, lines 14-17). This effect is also illustrated in FIG. 6.
- If the conductivity is too large, the image will be very large, possibly even covering the entire surface of the pad (page 9, lines 19-23). This effect is also illustrated in FIG. 7.
- If the conductivity is too small, the image will not be much larger than the tip of the stylus (page 9, lines 30-33). This effect is also illustrated in FIG. 8.

- The specification teaches that for one embodiment, the conductivity of the surface can be chosen for best operation such that the image of the stylus is about the same size as a finger would be on a normal capacitive sensor (see page 10, lines 3-6, and the similarity between graph 205 of FIG. 2 and graph 506 of FIG. 6). The specification also gives as an example the increasing of area by a factor of four (see page 12, lines 4-12).

Furthermore, we note that the use of the term “moderate” clearly defines an intermediate amount of conductivity. For example, “moderate” is defined as “tending toward the mean or average amount or dimension” (see Merriam-Webster’s Collegiate Dictionary, 11th Edition). Thus, a material having “moderate conductivity” would not have the full conductivity found in a pure metallic conductor, or the absence of conductivity found in an insulator material. Instead, a moderate conductivity describes an intermediate level of conductivity, such as that found in the described carbon impregnated epoxy.

Finally, we again note that someone with ordinary skill in capacitive sensor design would have a professional level of training in electrical engineering and physics, and would thus have a strong understanding of underlying material properties, including the conductivity of materials such as carbon impregnated epoxy.

In summary, the specification thus clearly describes a suitable material for use in the touch layer (*i.e.*, carbon powder in epoxy), describes a suitable conductivity in general (*i.e.*, moderate conductivity), and gives detailed guidance in determining what the effect of a suitable conductivity for a particular application would be (*i.e.*, selected to increase an image of a stylus by a factor of 4). One of ordinary skill in the art is thus taught to start with carbon powder impregnated epoxy, which inherently has a moderate conductivity, and adjusts the level of conductivity until the desired result is achieved for the particular application. While determining the precise preferred conductivity for a particular application would clearly involve some experimentation, such experimentation would clearly be within the highly technical abilities of one of ordinary skill in the relevant art. Furthermore, given the explicit guidance in selecting a suitable material and

conductivity, such experimentation would not be “undue”. As stated by the Federal Circuit, “[w]here the specification provides ‘guidance in selecting the operating parameters that would yield the claimed result,’ it is fair to conclude that the experimentation required to make a particular embodiment is not ‘undue’” *PPG Indus v. Guardian Indus Corp.*, 75 F.3d. 1558, 37 USPQ2d 1618 at 1624 (Fed. Cir. 1996),
5 *quoting In re Colianni*, 561 F.2d 220, 224, 195 USPQ 150, 153 (C.C.P.A. 1977) (Miller, J. concurring).

Thus, appellants submit that the specification enables one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the
10 invention, and thus meets the requirements 35 U.S.C. 112, first paragraph.

3. Conclusion

In view of the foregoing, Appellants submit that the rejections of Claims 24, 52-96 under 35 U.S.C. § 112 is improper and should not be sustained. Therefore, a reversal of the rejections in the Office Action dated January 22, 2010, is respectfully requested.

5

Respectfully submitted,
INGRASSIA FISHER & LORENZ, P.C.

10

Dated: March 31, 2010

/S. JARED PITTS/
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VIII. CLAIMS APPENDIX

Claims on Appeal

5 1-23. (Cancelled)

24. A touch pad system comprising:

 a sensor layer;

 an insulative layer disposed over said sensor layer; and

10 a touch layer disposed over said insulative layer, said touch layer having a conductivity selected to create an image of a conductive object that is larger than an area of contact of said conductive object, and wherein said sensor layer capacitively detects the image of said conductive object when said conductive object is placed proximate to said touch layer, wherein the conductivity of said touch layer is configured to limit the
15 size of said image to approximately four times the area of contact of said conductive object.

25-51. (Cancelled)

20 52. A capacitive touch pad system comprising:

 a sensor layer;

 an insulative layer disposed over said sensor layer; and

 a conductive touch layer disposed over said insulative layer, wherein said sensor layer, said insulative layer and said conductive touch layer are configured to form a
25 capacitor with a conductive object when said conductive object contacts said conductive

touch layer, said formed capacitor having a capacitance determined in part by the
conductive touch layer and the conductive object, and wherein the conductive touch layer
has a conductivity configured to create an image of said conductive object that is larger
than an area of contact of said conductive object to thereby increase the capacitance of
5 the formed capacitor when contacting the conductive touch layer and facilitate sensing of
the capacitance to determine a position of the conductive object.

53. The touch pad system of claim 52, wherein said image of said conductive object
10 is about the size of a finger when said area of contact is defined by a conductive stylus
tip.

54. The touch pad system of claim 52, wherein said conductive touch layer comprises
a conductive material disposed in a plastic carrier.

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55. The touch pad system of claim 54, wherein said conductive material comprises
carbon powder.

56. The touch pad system of claim 52, wherein said insulative layer, said conductive
20 touch layer and said sensor layer are transparent, and wherein a display is positioned
beneath said sensor layer and images from the display are viewable through said sensor
layer, said insulative layer and said conductive touch layer, said display configured to
provide visual feedback to a user of the touch pad system.

25 57. The touch pad system of claim 52, further comprising:

a bezel disposed over said conductive touch layer and covering a perimeter of said
conductive touch layer, wherein said bezel is configured to limit edge distortion effects

by preventing the conductive object from contacting the conductive touch layer at the perimeter.

58. The touch pad system of claim 52, wherein the touch pad system is configured to
5 compensate for edge distortion by use of a correction function applied to measured
conductive object positions during operation of the touch pad system.

59. The touch pad system of claim 58 wherein the correction function is generated by
measurement of conductive object positions at multiple locations on said conductive
10 touch layer, tabulation of said measurements of said conductive object positions, and
development of a mathematical function from said tabulation.

60. The touch pad system of claim 52, wherein the touch pad system is configured to
distinguish an identity of the conductive object by determining a change in the
15 capacitance over a selected time period when the conductive objective is positioned
proximate the conductive touch layer, wherein the a variable change in capacitance over
the selected time period corresponds to a finger determination and a substantially
constant capacitance over the selected time period corresponds to a stylus determination.

20 61. The touch pad system of claim 52 wherein the conductive touch layer is
configured to produce a visual mark of the conductive object contacting said conductive
touch surface.

62. The touch pad system of claim 52 wherein the conductive touch layer has the
25 conductivity selected such that the image has an area at least four times larger than the
area of contact of said conductive object.

63. A capacitive touch pad system comprising:
- a sensor layer;
 - an insulative layer disposed over said sensor layer; and
 - a conductive touch layer disposed over said insulative layer, wherein said sensor layer, said insulative layer and said conductive touch layer are configured to form a capacitor with a conductive object when said conductive object is placed proximate to said sensor layer, said formed capacitor having a capacitance determined in part by the conductive touch layer and the conductive object, and wherein the conductive touch layer comprises conductive carbon disposed in epoxy and has a conductivity selected to create an image of said conductive object that is at least four times larger than an area of contact of said conductive object to thereby increase the capacitance of the formed capacitor when contacting said conductive touch layer and facilitate sensing of the capacitance to determine a position of the conductive object.
64. The touch pad system of claim 52, wherein the touch pad system further comprises a means of distinguishing an identity of the conductive object.
65. The touch pad system of claim 64 wherein said means for distinguishing said identity of said conductive object comprises a means using a size of said image.
66. The touch pad system of claim 64 wherein said means for distinguishing said identity of said conductive object determines a change in the capacitance over a selected time period when the conductive objective is positioned proximate the conductive touch layer, wherein the a variable change in capacitance over the selected time period corresponds to a finger determination and a substantially constant capacitance over the selected time period corresponds to a stylus determination.

67. The touch pad system of claim 64 wherein said means for distinguishing said identity of said conductive object comprises a means based on a rate of change of a detected change in capacitance, wherein a stylus produces an immediate full strength
5 detected change in capacitance upon contact with said conductive touch layer and a finger produces a gradually increasing detected change in capacitance as said finger approaches contacting said conductive touch layer.

68. (Currently Amended) A capacitive touch pad system comprising:

10 a sensor layer;

an insulative layer disposed over said sensor layer; and

a conductive touch layer disposed over said insulative layer, wherein said sensor layer, said insulative layer and said conductive touch layer are configured to create a detectable capacitance change when a conductive object contacts said conductive touch
15 layer, said detectable capacitance change determined in part by said conductive touch layer and the conductive object, and wherein the conductive touch layer has a conductivity configured to create an image of said conductive object that is larger than an area of contact of said conductive object with said conductive touch layer to thereby increase said detectable capacitance change when said conductive object is contacting
20 said conductive touch layer.

69. (Previously Presented) The capacitive touch pad system of claim 68 wherein said image of said conductive object forms a larger effective capacitive plate for coupling to said sensor layer.

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70. (Previously Presented) The capacitive touch pad system of claim 68, wherein said image of said conductive object is about a size of a finger contact area when said

area of contact with said conductive touch layer is defined by a tip on a conductive fine-tipped stylus.

71. The capacitive touch pad system of claim 68, wherein the conductivity of said
5 conductive touch layer is configured to limit a size of said image to approximately four times the area of contact of said conductive object.

72. The capacitive touch pad system of claim 68, wherein said conductive touch layer is formed with a conductive material disposed in a plastic carrier.

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73. The capacitive touch pad system of claim 72, wherein said conductive material comprises carbon powder.

74. (Previously Presented) The capacitive touch pad system of claim 68, wherein
15 said insulative layer, said touch layer and said sensor layer are at least partially transparent.

75. The capacitive touch pad system of claim 74, further comprising:
a display in operative communication below said sensor layer, said display
20 configured to be viewable through said sensor layer, said insulative layer, and said conductive touch layer.

76. The capacitive touch pad system of claim 75, wherein said display is configured to provide visual feedback to said user of said capacitive touch pad system.

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77. The capacitive touch pad system of claim 68, wherein said conductive object comprises a conductive stylus holdable by said user such that said user is in electrical communication with said stylus.
- 5 78. The capacitive touch pad system of claim 68, wherein said conductive object comprises one of a metal and a conductive plastic.
79. The capacitive touch pad system of claim 68, wherein said conductive object includes a conductive tip, said conductive tip selected from the group consisting of a
10 wide stylus, a ball of conductive foam, and a circular metal plate with a ball joint.
80. The capacitive touch pad system of claim 68, wherein said conductive object comprises a fine tipped conductive pen.
- 15 81. The capacitive touch pad system of claim 68, further comprising:
a bezel disposed over said conductive touch layer and covering a perimeter of said conductive touch layer, wherein said bezel is configured to limit edge distortion effects by preventing said conductive object from contacting said conductive touch layer at said perimeter.
- 20 82. The capacitive touch pad system of claim 68, wherein said capacitive touch pad system is configured to compensate for edge distortion by use of a correction function applied to measured conductive object positions during operation of said capacitive touch pad system.

83. The capacitive touch pad system of claim 68, wherein said calibration means comprises:

a correction function configured to compensate for edge distortion, wherein said correction function can be applied to measured conductive object positions during
5 operation of the capacitive touch pad system.

84. The capacitive touch pad system of claim 68, wherein said capacitive touch pad system further comprises a means for distinguishing an identity of said object.

10 85. The capacitive touch pad system of claim 84, wherein said means for distinguishing an identity of said object comprises a means using a size of said image.

86. The capacitive touch pad system of claim 84 wherein said means for distinguishing said identity of said conductive object is configured to distinguish said
15 identity of said conductive object by determining a change in said capacitance over a selected time period when said conductive objective is positioned proximate the conductive touch layer, wherein the a variable change in capacitance over the selected time period corresponds to a finger determination and a substantially constant capacitance over the selected time period corresponds to a stylus determination.

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87. The capacitive touch pad system of claim 84 wherein said means for distinguishing said identity of said conductive object comprises a means based on a rate of change of a detected change in capacitance, wherein a stylus produces an immediate full strength detected change in capacitance upon contact with said conductive touch
25 layer and a finger produces a gradually increasing detected change in capacitance as said finger approaches contacting said conductive touch layer.

88. A capacitive touch pad system comprising:
a sensor layer;
an insulative layer disposed over said sensor layer; and
a conductive touch layer disposed over said insulative layer, wherein said sensor
5 layer, said insulative layer and said conductive touch layer are configured to create a
detectable capacitance change when a conductive object contacts said conductive touch
layer, said detectable capacitance change determined in part by said conductive touch
layer and said conductive object, and wherein said conductive touch layer has a
conductivity configured to create an image of said conductive object that is larger than an
10 area of contact of said conductive object to thereby increase said detectable capacitance
change when said conductive object is contacting said conductive touch layer and
facilitate sensing of said detectable capacitance change to determine a position of said
conductive object, and wherein said conductive touch layer is configured to produce a
visual mark representative of said area of contact for providing visual feedback to the
15 user.

89. The capacitive touch pad system of claim 88 wherein said visual mark is
produced by a mechanical contact of said conductive object with said conductive touch
layer.

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90. The capacitive touch pad system of claim 88 wherein said visual mark is
produced by a chemical property of said conductive object.

91. The capacitive touch pad system of claim 89 wherein said visual mark is an
25 alteration in at least one of a color and a reflectivity produced by said mechanical contact
of said conductive object with said conductive touch layer.

92. The capacitive touch pad system of claim 89 wherein said visual mark is produced by a sacrificial material on a tip of said conductive object.

5 93. The capacitive touch pad system of claim 92 wherein said sacrificial material comprises graphite.

94. The capacitive touch pad system of claim 89 wherein said conductive touch layer comprises a pliant material, and wherein visual mark is produced by a groove in said conductive touch layer in response to mechanical contact of said conductive object with
10 said conductive touch layer.

95. The capacitive touch pad system of claim 89 wherein said visual mark produced by said mechanical contact of said conductive object with said conductive touch layer is removable.
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96. The capacitive touch pad system of claim 88 wherein said visual mark is produced by a layer of liquid crystal material coupled to said conductive touch layer in response to mechanical contact of said conductive object with said conductive touch layer.
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IX. EVIDENCE APPENDIX

5 No evidence pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 has been entered by
the Examiner or relied upon by Appellant in the instant appeal beyond that which is
already contained in the as-filed application, as is delineated in the Arguments section of
this Brief.

X. RELATED PROCEEDINGS APPENDIX

As there are no related appeals and interferences, there are also no decisions rendered by a court or the Board of Patent Appeals and Interferences that are related to
5 the instant appeal.